

## Process Sheet

split

### Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D6104007	17-4 SS Roundbar 4.50"OD
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

17-4 SS Roundbar 4.50"OD

D6104-007

BATCH: B 32169A

25/07/2024

2.0	32169A	ROUND BILLET 17-4
-----	--------	-------------------



Comment: Sub-Component ROUND BILLET 17-4

D6104-007 B 32169A

2407/05/29

3.0 MORI SEIKI MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

Turn blank for Haas as per Folio FA079

8:15 07/05/29

4.0 QC1 INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

88 01/05/30

5.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS

1- Machine as per Folio FA079

## 2- Tumble & Debur

J.L./J.F. 07/06/2009

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2940-1 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: R Date: 07/08/03  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR: <u>32169</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>07/05/00</u> <u>8.1F</u>	<u>3.0</u>	<u>The Length of support is .010" under the tolerance. Because Bad origine. support #9.</u>	<u>[Signature]</u> <u>07-05-00</u> <u>PER</u> <u>Q51042</u>	<u>THE DEVIATION IS ACCEPTABLE.</u>	<u>[Signature]</u> <u>07-05-00</u>	<u>[Signature]</u> <u>07-06-00</u>	<u>[Signature]</u> <u>07-05-00</u> <u>PER</u> <u>Q51042</u>	<u>[Signature]</u> <u>07-06-00</u>

NOTE: Date & initial all entries



Date: Thursday, 5/3/2007 11:30:31 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 03.250 SUPPORT

Job Number: 32169

Part Number: D29401

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

J.F./B.L 07/06/26 (9)

7.0

QC8

SECOND CHECK



Comment: SECOND CHECK

8-07-25 (9)

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3

\*\*\*\*\*Mask Inside Surface as per Dwg D2940\*\*\*\*\*

BR/FL 07-07-26 (9)

9.0

SPRAY PAINTING

SPRAY PAINTING



Comment: SPRAY PAINTING

ml 0707

Prime inside surface as per Dwg D2940 and QSI 005 4.3.

10.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

ml 0707 31 (18)

11.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: Beside Paint Booth

85 07-08-02

12.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07.08.02 (9)

Job Completion



7/07.08.02

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	
<b>Description:</b> Ø3.250 Support		<b>Part Number:</b> D2940-1	
<b>Inspection Dwg:</b> D2940 Rev. <i>ATB # 07.03.03</i>		<b>Page 1 of 1</b>	

Inspect dimensions highlighted on inspection sheet drawing D2940 Rev. A1/ DSK081 Rev. B & record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
<b>Lathe Section</b>									
A	3.211	3.216		3.216	3.216	3.215	3.216		
B	4.946	4.966		4.949	4.949	3.952	3.949		
C	0.718	0.738		.725	.721	.724	.724		
D	0.090	0.110		.102	.108	.100	.100		
E	3.564	3.584		3.568	3.573	3.572	3.573		
F	0.022	0.042		.032	.032	.032	.032		
G	3.444	3.464		3.446	3.451	3.452	3.452		
H	0.112	0.132		.122	.122	.122	.122		
I	2.170	2.190		2.178	2.178	2.181	2.180		
J	4.451	4.471		4.462	4.462	4.462	4.462		
K	0.413	0.433		.422	.422	.422	.422		
L	0.913	0.933		.919	.920	.920	.919		
M									
N									
<b>HAAS Section</b>									
AA	0.240	0.260		R.250"	.250	.250	.250		
AB	0.490	0.510		.500"	.500	.500	.500		
AC	0.140	0.160		.154"	.155	.154	.153		
AD	3.510	3.530		3.515"	3.514	3.515	3.513		
AE	1.633	1.673		1.650"	1.652	1.650	1.650		
AF	1.493	1.513		1.497"	1.499	1.501	1.501		
AG	0.040	0.060		.050"	.049	.054	.054		
AH	0.188	0.193	DT8706	.189"	.190	.190	.190		
AI	0.140	0.160		.143"	.141	.146	.151		
AJ	2.518	2.538		2.538"	2.538	2.538	2.538		
AK	0.040	0.060		.050"	.048	.050	.049		
AL	0.010	0.020		.010"	.010	.010	.010		
AM	0.140	0.160		.147"	.145	.154	.150		
AN	0.350	0.450		.370"	.370	.370	.370		
AO	0.240	0.260		R.250"	.250	.250	.250		
AP	0.150	0.170		.153"	.155	.151	.151		
AQ	0.053	0.073		R.063"	.063	.063	.063		
AR	101.64	105.64	DT8698	101.64"					
AS	<del>0.257</del>	0.202	DT8683	<del>0.250</del>	.250	.250	.250		
AT	0.053	0.073		R.063"	.063	.063	.063		
AU	4.118	4.138		4.129"	4.126	4.125	4.125		
AV									
AW									
<b>Accept/Reject</b>									

Measured by: <i>8.F. J.F. / J.L.</i>	Audited by: <i>36</i>
Date: <i>07/05/24</i>	Date: <i>07-07-25</i>

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	<i>[Signature]</i>

*.260 → .267*  
*7/07.06.27*



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	
<b>Description:</b> Ø3.250 Support		<b>Part Number:</b> D2940-1	
<b>Inspection Dwg:</b> D2940 Rev. A1 <i>AT B PH 07-05-03</i>		<b>Page 1 of 1</b>	

Inspect dimensions highlighted on inspection sheet drawing D2940 Rev. A1/ DSK081 Rev. B & record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	5	6	7	8	By	Date
<b>Lathe Section</b>									
A	3.211	3.216		3.215	3.216	3.216	3.214		
B	4.946	4.966		4.952	4.956	4.953	4.953		
C	0.718	0.738	<i>72</i>	.725	.725	.721	.721		
D	0.090	0.110		.101	.101	.100	.100		
E	3.564	3.584		3.574	3.574	3.574	3.574		
F	0.022	0.042		.032	.032	.032	.032		
G	3.444	3.464		3.454	3.454	3.454	4.462		
H	0.112	0.132		.122	.122	.122	.122		
I	2.170	2.190		2.180	2.180	2.180	2.180		
J	4.451	4.471		4.454	4.470	4.461	4.461		
K	0.413	0.433		.422	.422	.421	.421		
L	0.913	0.933		.919	.919	.919	.920		
M									
N									
<b>HAAS Section</b>									
AA	0.240	0.260		.250	.250	.250	.250		
AB	0.490	0.510		.500	.500	.500	.500		
AC	0.140	0.160		.152	.152	.149	.145"		
AD	3.510	3.530		3.515	3.515	3.513	3.512"		
AE	1.633	1.673		1.649	1.653	1.652	1.654"		
AF	1.493	1.513		1.505	1.503	1.507	1.503"		
AG	0.040	0.060		.052	.051	.055	.051"		
AH	0.188	0.193	DT8706	.190	.190	.190	.190		
AI	0.140	0.160		.148	.150	.150	.154"		
AJ	2.518	2.538		2.538	2.538	2.538	2.538		
AK	0.040	0.060		.051	.050	.050	.050"		
AL	0.010	0.020		.010	.010	.010	.010		
AM	0.140	0.160		.150	.149	.140	.160"		
AN	0.350	0.450		.370	.370	.370	.370		
AO	0.240	0.260		.250	.250	.250	.250		
AP	0.150	0.170		.151	.150	.151	.150"		
AQ	0.053	0.073		.063	.063	.063	.063		
AR	101.64	105.64	DT8698						
AS	0.257	0.262	DT8683	.250	.250	.250	.250		
AT	0.053	0.073		.063	.063	.063	.063		
AU	4.118	4.138		4.127	4.127	4.128	4.130"		
AV									
AW									
<b>Accept/Reject</b>									

Measured by: <i>JP</i>
Date: <i>07/05/29/07/06/25</i>

Audited by: <i>BC</i>
Date: <i>07.07.25</i>

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	<i>#</i>



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	
<b>Description:</b> Ø3.250 Support		<b>Part Number:</b> D2940-1	
<b>Inspection Dwg:</b> D2940 Rev. A/B # 07-05-03		<b>Page 1 of 1</b>	

Inspect dimensions highlighted on inspection sheet drawing D2940 Rev. A1/ DSK081 Rev. B & record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
<b>Lathe Section</b>									
A	3.211	3.216		3.215					
B	4.946	4.966		4.939					
C	0.718	0.738		.721					
D	0.090	0.110		.100					
E	3.564	3.584		3.574					
F	0.022	0.042		.032					
G	3.444	3.464		3.454					
H	0.112	0.132		.121					
I	2.170	2.190		2.180					
J	4.451	4.471		4.460					
K	0.413	0.433		.413					
L	0.913	0.933		.932					
M									
N									
<b>HAAS Section</b>									
AA	0.240	0.260		A.250"					
AB	0.490	0.510		A.500"					
AC	0.140	0.160		.152"					
AD	3.510	3.530		3.514"					
AE	1.633	1.673		1.650"					
AF	1.493	1.513		1.505"					
AG	0.040	0.060		.055"					
AH	0.188	0.193	DT8706	Ø.189"					
AI	0.140	0.160		.150"					
AJ	2.518	2.538		2.520"					
AK	0.040	0.060		.050"					
AL	0.010	0.020		.010"					
AM	0.140	0.160		.160"					
AN	0.350	0.450		.370"					
AO	0.240	0.260		A.250"					
AP	0.150	0.170		.150"					
AQ	0.053	0.073		A.063"					
AR	101.64	105.64	DT8698						
AS	<del>0.267</del>	<del>0.262</del>	DT8683	Ø.260"					
AT	0.053	0.073		A.063"					
AU	4.118	4.138		4.109"					
AV									
AW									
<b>Accept/Reject</b>									

Measured by: J.F.	Audited by: J.F.
Date: 07/05/30	Date: 07-07-25

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	

0.260 → .267

[illegible]

R0.063  
(TYP ALL AROUND  
INSIDE EDGE)

R103.64±2-  
(THIS EDGE ONLY)

SECTION B-B  
SCALE 1:1

TO  
CENTER

SECTION A-A  
TOOLING HOLE DETAIL  
SCALE 1:1

1) MATERIAL: 17-4 PH STAINLESS STEEL  
HEAT TREAT TO H900 CONDITION  
(900°F FOR 1 HR, AIR COOL)  
MIN UTS = 170 KSI (38 HRc)

2) IDENTIFY WITH DART LOGO AND PART NUMBER IN THIS AREA  
WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP

3) BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020

4) PART IS SYMMETRIC ABOUT CENTERLINE




5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

6) ALL DIMENSIONS ARE IN INCHES

7) FINISH: POWDER COAT WHITE (REF 4.3.5.2) PER DART QSI 005 4.3  
PRIME INSIDE SURFACE AS SHOWN PER DART QSI 005 4.2

[illegible]

SHOOT COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. \_\_\_\_\_  
IN THIS AREA  
P

B	07.03.16	UPDATE PER NCR 642, PRIME INSIDE	
A	01.01.10	NEW ISSUE	
DESIGN	 DRAWN BY 	 <b>DART AEROSPACE LTD.</b> PARKESBURY, ONTARIO, CANADA	
CHECKED	 APPROVED 	DRAWING NO. D2940	REV. B SHEET 1 OF 1
DATE	07.03.16	TITLE Ø3.250 SUPPORT	SCALE 1:2

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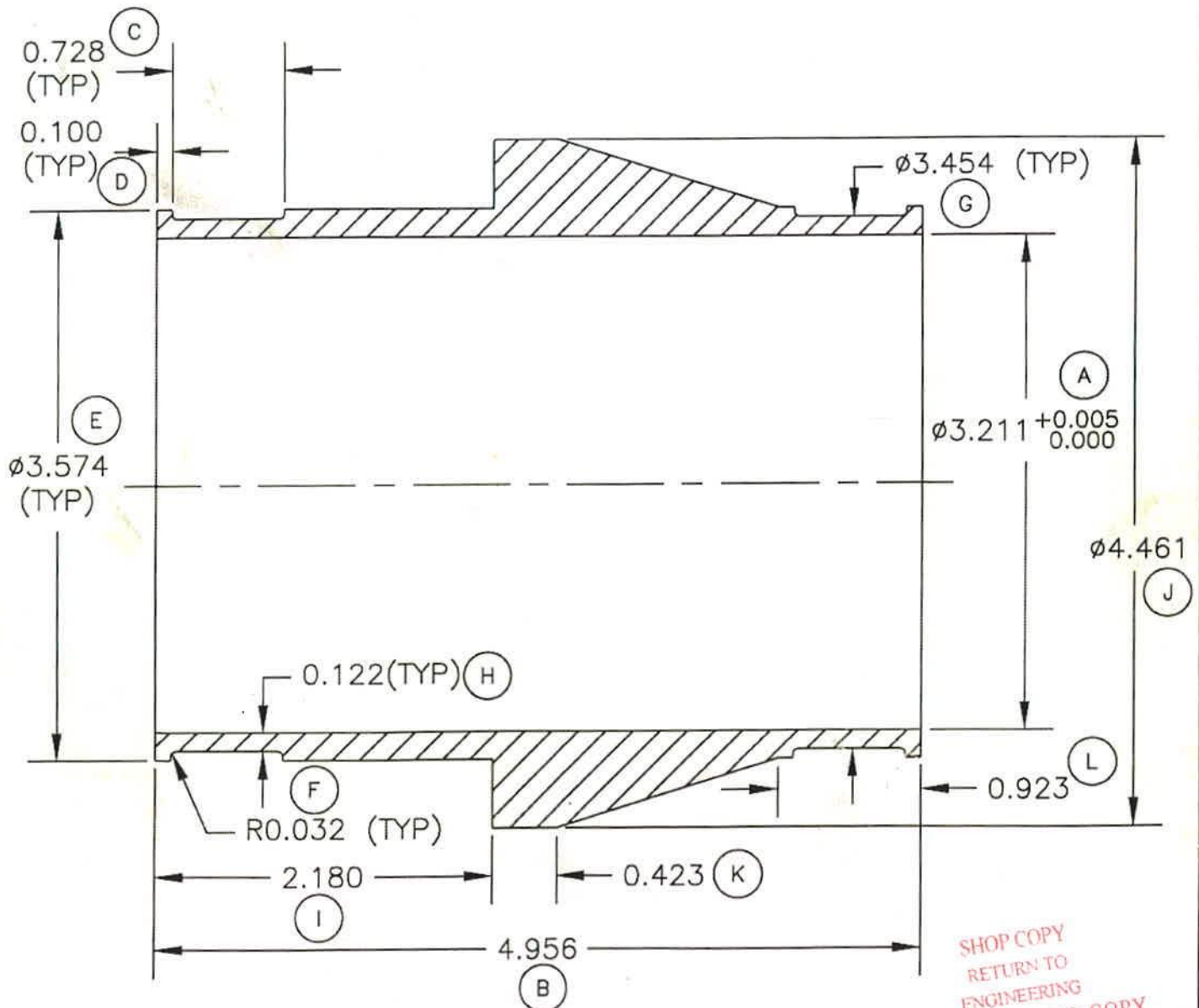
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DESIGN [Signature]	DRAWN BY [Signature]	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. DSK 081	REV. B SHEET 1 OF 1
DATE 03.06.24		TITLE TURNING DETAIL FOR D2940-1	SCALE 1:1
A	03.03.07	NEW ISSUE	
B	03.06.24	ADDED 4.956 DIMENSION	

RELEASED  
03-07-01 [Signature]



D2940-1 TURNING DETAIL

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. \_\_\_\_\_

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768 923823 01		A.M. CASTLE & Co. (Canada) Inc.		EXPEDIE 22 MAI 2007		551768	
CLIENT-CUSTOMER REQUISITION NO.		NO. COM. CLIENT-CUST. ORD. NO.		COMPT-ACCT. VEND. SLS TERR. EXPEDIE PAR-SHIP VIA			
		3709		91037 200 40 CABANO (PPD)			
EUR-PURCHASING AGENT		TELEPHONE		H/C TAXE NO. COM ORD		REGION LIVRAISON-DEL ZONE F.A.B.-F.O.B.	
LINDA LACELLE		613 632-3336		9 0 1		C/C PREPAID	
VIVRE A-SHIP TO:		VENDU A-SOLD TO:		INFORMATION CREDIT-CREDIT INFORMATION		ROUTE	
		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY ON K6A 1K7				01*NL-05 31-NL-05	
INSTRUCTIONS/LIVRAISON-DELIVERY		INSTRUCTIONS LIVRAISON (CONT.)-DELIVERY (CONT'D.)		INSTRUCTIONS LIVRAISON (CONT.)-DELIVERY (CONT'D.)			
IND-E54713							
DESCRIPTION - ITEM 1				QTE/UNITE COM-ORDERED		PCES/PO COM-ORD	
4.5000 RD 17CR-4NI RT SOL. TREATED COND A STNLS 5.10"				10 PCS PCS		POIDS COM.-WT. ORD. F	
GOLD				BALLOTS-BUNDLES		PCES/PO EXP. SHIP	
				1 9		POIDS EXP.-WT. SHIPPED	
CERTIFICATE OF CONFORMANCE				COULÉE INFO-HEAT INFO QTE-QTY		FORME-SHAPE I.A.C.	
A.M. Castle & Co. certifies that the material(s) supplied under this document will meet and conform to the specifications of the product(s) described hereon. A.M. Castle & Co. (Canada) Inc.				A18455 ✓		14991	
INSTRUCTIONS				INSTRUCTIONS (CONT'D.)			
TOL + 1/16" / -0"				9x5.10"		4	
PRIOR DIST/ORD: 01 923823							
WEIGHT FOR SHIPPING PURPOSES ONLY. SEE INVOICES FOR ACCURATE BILLING WEIGHT. PLEASE SIGN AND DATE DRIVER'S COPY FOR RECEIPT OF MATERIAL AND, IF CHECKED, TEST REPORTS.							
DESCRIPTION - ITEM 2				QTE/UNITE COM-ORDERED		PCES/PO COM-ORD	
TERMS AND CONDITIONS OF SALE				BALLOTS-BUNDLES		POIDS COM.-WT. ORDERED	
SEE DISCLAIMERS AND LIMITATIONS ON THE REVERSE SIDE				1 Box		POIDS EXP.-WT. SHIPPED	
INSTRUCTIONS				COULÉE INFO-HEAT INFO QTE-QTY		FORME-SHAPE I.A.C.	
				INSTRUCTIONS (CONT'D.)			
DESCRIPTION - ITEM 3				QTE/UNITE COM-ORDERED		PCES/PO COM-ORD	
ALL EXCEPTIONS FOR SHORTAGE OR DAMAGE MUST BE NOTED ON THE DRIVER COPY & CUSTOMER COPY OF THE DELIVERY RECEIPTS & SIGNED BY THE DRIVER & CUSTOMER. COPY OF SUCH RECEIPT PROPERLY NOTED MUST BE SUBMITTED WITHIN 10 DAYS WHEN CREDIT IS REQUESTED.				BALLOTS-BUNDLES		POIDS COM.-WT. ORDERED	
NOM (LETTRE MOULEE)-NAME (PRINT ONLY)				COULÉE INFO-HEAT INFO QTE-QTY		POIDS EXP.-WT. SHIPPED	
RECU PAR-RECEIVED BY				INSTRUCTIONS (CONT'D.)		FORME-SHAPE I.A.C.	
DATE RECU-DATE RECEIVED							

FEVILLE D'EMBALLAGE - PACKING SL  
END